KONSENTRASI DAYA HAMBAT EKSTRAKKULIT BUAH COKLAT (*THEOBROMA CACAO L.*) TERHADAP PEMBENTUKAN EPS BIOFILM *ENTEROCOCCUS FAECALIS*

ABSTRACT

Introduction: Pulp and periapical tissue pathology is assosiated with microorganism and their product. Endodontic treatment is procedure to eliminate microorganism as etiological factor of pulp necrosis and periapical lession development, but endodontic treatment can be failed because of the survival microorganisms in the apical portion of the root-filled tooth. *Enterococcus fecalis* is commonly found in high percentage of root canal failure because its ability to form biofilm. To maximize success rate endodontic treatment, sodium hypochloride is used as irrigant due its ability to dissolve organic soft tissues and its action as a potent antimicrobial agent, but sodium hypochloride toxicity is the main concern, so the safetiest alternative irrigant needed, *Theobroma cacao* pod husk extract can be alternative choice. **Aim**: To determine inhibition concentration of cacao pod husk extract on *Enterococcus faecalis* EPS biofilm thickness. **Methode:** four groups sample of *E. faecalis* cultured biofilm; group 1 as positive control, group 2 *E. faecalis* with *cacao* pod husk extract 1.56%, group 3 *E. faecalis cacao* with pod husk extract 3.125% and group 4 *E. faecalis* with *cacao* pod husk extract 6.25%. All groups will be analyzed EPS biofilm thickness with confocal laser scanning microscopy and then statistical analysis is taken. **Result:** the average value of EPS biofilm thickness, group 1: 9500 nm**,** group 2: 8125 nm, group 3: 8000 nm, group 4: 6375 nm. **Conclusion:** *cacao* pod husk extract 6.25% show inhibition effect on *Enterococcus faecalis* EPS biofilm thickness.

Key words: endodontic, *Enterococcus faecalis, cacao* pod husk extract, EPS biofilm